micrometers in length per microgram of dried lung were as follows: chrysotile, area A, 7; area B, 13 (not significant); tremolite, area A. 32; area B. 7 (P = 0.0002)." (*1*)

This information is not in the cited study, and the researchers do not specify the exact location or names of the area A and B mines in any published or unpublished study. Dr. Sebastién has confirmed that his report did not examine this issue, and he was unaware of any other studies (including his own), published or unpublished, that recorded any lung fiber measurements by mine location. (*12*) The authors provided no comparative data on age, work years, date of first exposure, job, underlying disease or time spent working in other mines. (*1*) Any of these variables could explain the comparative data, and in their 1997 publication they noted that most of the peripheral mines "had started so recently that there were inadequate periods of latency" for mesothelioma to occur in workers at "peripheral" mines. (*2*) Since chrysotile is cleared from the lung over time, this fact alone could explain the higher chrysotile/tremolite ratios in workers from "peripheral" mines. (*13*)

If the findings are not confounded by any of these factors, then the accuracy of the dose estimates used in the entire series of epidemiologic studies published on the Canadian miners must be questioned. The study by Sebastién et al. used comparative chrysotile/tremolite ratios between mine workers and textile workers to justify their dose estimates. (*11*) If the mine tremolite/chrysotile ratios used for this comparison came from two different miner exposure categories, then the analysis is fatally flawed.

In 1997, McDonald et al. published a detailed explanation of the "tremolite hypothesis," and claimed they had "re-analyzed" the data found in Sebastién (1989), but they did not present any data or analysis of lung tremolite levels. (*2*) Instead the 1997 "re-analysis" appears to be an